**The History of Astronomy**

**WebQuest**



**Introduction:**

Astronomy is the scientific study of matter in outer space, especially the positions, dimensions, distribution, motion, composition, energy, and evolution of celestial bodies and phenomena.

Humans have been looking to the stars for several millennia in an attempt to make sense of our place in the Universe. Our understanding of the heavens has grown and evolved over the course of human history. In this WebQuest you are going to look at some of the ideas, people, and technology that have helped to add to our collective understanding of the Universe.

**The Task:**

You are going to be answering a series of questions to help you gain an understanding of the history of astronomy. Please answer each question on this document. Please either bold your response or change the font color to something other than black. Please don’t choose a color that is hard to see (like yellow). If I can’t see it I’m not grading it.

Use the websites provided or another of your choosing to answer the questions. If one of the provided links doesn’t work (either due to the website being down or because it’s blocked here at school) please let Mr. Dunkle know. Thanks.

**The Process:**

1. Ancient Astronomers: The following astronomers/scientists all played a significant role in advancing our understanding of the cosmos during early civilization. Using the following sites, or one of your own, write a brief description about the time period during which the person lived, where they lived, their contributions to astronomy, and what you think about their accomplishments. All answers should be written directly beneath the name of the astronomer and written in complete sentences.

**Websites:**

[Top 10 Important Astronomers](http://listverse.com/2011/09/08/top-10-most-important-astronomers/)

[Famous People in Astronomy](http://www.astro.cornell.edu/academics/courses/astro201/famous_people.htm)

[7 Astronomers You Should Know](http://science.discovery.com/space/space-scientists/7-astronomers-you-should-know.html)

[List of Astronomers](http://en.wikipedia.org/wiki/List_of_astronomers)

[Famous Astronomers](http://www.techknow.org.uk/wiki/index.php?title=Famous_Astronomers)

**People:**

Hipparchus

Aristotle

Aristarchus

Ptolemy

1. Renaissance Astronomers: The following astronomers/scientists all played a significant role in advancing our understanding of the cosmos in and around the time of the Renaissance. Using the following sites, or one of your own, write a brief description about the time period during which the person lived, where they lived, their contributions to astronomy, and what you think about their accomplishments. All answers should be written directly beneath the name of the astronomer and written in complete sentences.

**Websites:**

[Top 10 Important Astronomers](http://listverse.com/2011/09/08/top-10-most-important-astronomers/)

[Famous People in Astronomy](http://www.astro.cornell.edu/academics/courses/astro201/famous_people.htm)

[7 Astronomers You Should Know](http://science.discovery.com/space/space-scientists/7-astronomers-you-should-know.html)

[List of Astronomers](http://en.wikipedia.org/wiki/List_of_astronomers)

[Famous Astronomers](http://www.techknow.org.uk/wiki/index.php?title=Famous_Astronomers)

**People:**

Nicolaus Copernicus

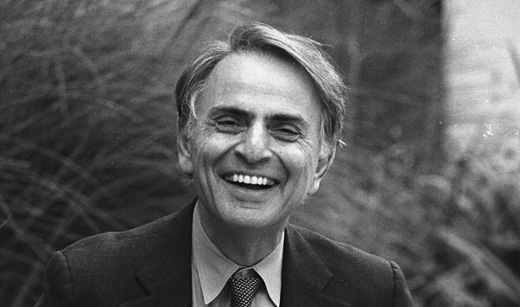
Tycho Brahe

Johannes Kepler

Galileo Galilei

William Herschel

Isaac Newton

1. Modern Astronomers: The following astronomers/scientists all played a significant role in advancing our understanding of the cosmos after the Renaissance. Using the following sites, or one of your own, write a brief description about the time period during which the person lived, where they lived, their contributions to astronomy, and what you think about their accomplishments. All answers should be written directly beneath the name of the astronomer and written in complete sentences.

**Websites:**

[Top 10 Important Astronomers](http://listverse.com/2011/09/08/top-10-most-important-astronomers/)

[Famous People in Astronomy](http://www.astro.cornell.edu/academics/courses/astro201/famous_people.htm)

[7 Astronomers You Should Know](http://science.discovery.com/space/space-scientists/7-astronomers-you-should-know.html)

[List of Astronomers](http://en.wikipedia.org/wiki/List_of_astronomers)

[Famous Astronomers](http://www.techknow.org.uk/wiki/index.php?title=Famous_Astronomers)

**People:**

Arno Penzias and Robert Wilson

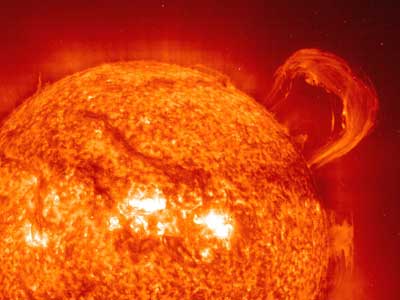
Edwin Hubble

Albert Einstein

Carl Sagan

Stephen Hawking

Alan Guth

1. Our understanding of the cosmos and the objects in it has evolved over many thousands of years. Ideas about stars, planets, moons, and even our own importance in the universe have been revised again and again throughout history. Below are some concepts and ideas that astronomers once believed or still believe. Please use the provided websites, or websites of your own choosing, to write a few sentences about each. Your answer should describe what the idea is, when it was first put forth, who first presented the idea, and whether or not we still believe the concept to be true. If the idea is no longer valid than please tell me what is currently the accepted theory.

**Websites:**

[Outdated Astronomical Theories](http://dsc.discovery.com/tv-shows/curiosity/topics/10-outdated-astronomical-theories.htm)

[Why Are There Seasons](http://www.universetoday.com/75843/why-are-there-seasons/)

[There’s No Gravity in Space](http://www.astronomy.com/News-Observing/Astronomy%20Myths/2009/11/Theres%20no%20gravity%20in%20space.aspx)

[Important Astronomers](http://listverse.com/2011/09/08/top-10-most-important-astronomers/)

[Astronomy Misconceptions](http://scc.losrios.edu/~sah/physics/44Miscon.htm)

**Concepts/Ideas:**

Geocentric Theory

Heliocentric Theory

Steady State Universe

Big Bang Theory

Comets are like fireballs in the sky

We have seasons because of our proximity to the sun

There’s no gravity in space

Hubble’s Law

Retrograde Motion

Drake Equation

Space is inflexible

The Sun is on fire

1. The equipment used by astronomers has changed over time. Early humans simply looked up to the sky with the naked eye. As time went on we evolved to use various tools to help us examine the sky. In this section please write a few sentences about each technology that has been used by astronomers. Please included when it was invented, by whom, what it is used for, and if it’s still being used today.

**Websites:**

[AstronomyOnline.org](http://astronomyonline.org/Science/Introduction.asp?Cate=Science&SubCate=MP01)

[Telescope History](http://www.nasa.gov/audience/forstudents/9-12/features/telescope_feature_912.html)

[The Radio Telescope](http://www.astro.umass.edu/~fcrao/education/report1.html)

[Hubble Site](http://hubblesite.org/)

[Astrophotography](http://en.wikipedia.org/wiki/Astrophotography)

[What is Spectroscopy?](http://loke.as.arizona.edu/~ckulesa/camp/spectroscopy_intro.html)

**Tools:**

Traditional Telescope

Radio Dish/Radio Telescope

Satellite Telescope (The Hubble Space Telescope)

Photography

Spectroscopy

Picture credits

[Names of Greek Astronomers](http://www.greek-names.info/names-of-ancient-greek-astronomers/)

[Western Washington University Planetarium](http://www.wwu.edu/skywise/a101_historicalfigures.html)

[Cristalinks](http://www.crystalinks.com/galileo.html)

[Letters of Note](http://www.lettersofnote.com/2012/03/butt-head-astronomer.html)

[Highway Trucker Astronomy](http://www.highwaytrucker.com/astronomy/)

[Astronomy2009](http://www.astronomy2009-algeria.org/hubble-telescope.html)